

Journal of Conventional Weapons Destruction

Volume 23
Issue 1 *The Journal of Conventional Weapons
Destruction Issue 23.1*

Article 14

April 2019

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Recommended Citation

Cardash, Michael (2019) "Booby-traps and Anti-handling Devices: Common Tactics," *Journal of Conventional Weapons Destruction*: Vol. 23 : Iss. 1 , Article 14.

Available at: <https://commons.lib.jmu.edu/cisr-journal/vol23/iss1/14>

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Booby-traps and Anti-handling Devices: *COMMON TACTICS*

by Michael Cardash [Terroence]

Booby-traps are designed to entice victims to perform a physical action with an apparently harmless object that hides an explosive device that leads to the device's unexpected initiation. Many booby-traps are improvised explosives devices (IED) and feature some kind of bait targeted to exploit emotions and the anticipated actions of security forces or civilians, who will initiate the explosive device in close proximity. Baiting is designed to attract attention and cause the victim to approach the IED. It is intended to pique curiosity or instinctual feelings, such as the desire to help (bait in the form of a body or an injured person), to profit (financial bait), longing (booby-trapped dolls used as bait in the Vietnam War), or those of honor and patriotism (using flags to lure soldiers to a device).

Many booby-traps feature some kind of bait designed to lure bomb disposal personnel closer to an IED and, in doing so, cause them to inadvertently step on a pressure plate. Other traps entice the victim to perform a physical action with an IED that will lead to its initiation, for example tampering with objects, such as flags or even weapons stockpiles abandoned by the enemy or competing forces. Anti-lift and anti-handling devices can also be improvised from other explosive devices and create a hidden danger for explosive ordnance disposal personnel. Such devices are often used in conjunction with anti-vehicle mines to prevent tampering with or removal of the mine.

On 17 February 2018, a booby-trapped Palestinian flag was planted along the Israel-Gaza border fence, east of the city of Khan Yunis. An Israeli Defense Forces (IDF) officer approached the flag to remove it from the border fence and was injured when it exploded as he laid it on the ground. The flag pole was booby-trapped with a victim-operated IED (VOIED), designed to initiate when the flag pole was tilted. The flag served as bait to draw in the victim (the IDF soldier).

Dozens of Palestinian flags are removed from the border fence on a daily basis without incident, causing the soldier to perceive this item as not dangerous, lowering the soldier's



Gaza border, 17 February 2018.
Images courtesy of Terroence.

mindfulness to the inherent dangers of these items that appear seemingly-harmless. Attempting to exploit mundane military or demining routines that invite complacency and reduce alertness among those who are being targeted for attack is a tactic utilized by terror organizations around the world. Using a weapon or ammunition as bait in a booby-trap is one of the simplest



The soldier raises the body of the mine, a distinct click is heard, and what looks like a lever can be discerned in the sand under the body of the mine.
Images courtesy of Terrogeance.

traps to assemble. This tactic, technique, and procedure (TTP) is known the world over and is considered a “classic.”

On 28 September 2017, a Saudi Arabian soldier was reportedly wounded while neutralizing a mine planted by Houthi rebels near the southern border with Yemen. Video footage of the incident reveals the attempted neutralization and the moment the mine detonated. The documentation shows the Saudi soldier attempting to neutralize a TM-62 anti-tank mine. After unscrewing and removing the fuze, the soldier next raises the body of the mine, after which an explosion is heard. Upon closer examination, a lever can be discerned in the sand under the mine after the soldier picks it up, and a distinct click can be heard, followed a few seconds later by the blast. The anti-tank mine seems to have been fitted with a simple, improvised anti-handling device in the form of a hand grenade placed under the mine with its safety pin removed, with the weight of the mine holding the lever in place.

The use of grenades as anti-handling devices is one of the simplest types of such devices taught around the world, used in the military in various improvisation situations and in instructional manuals produced and disseminated by terrorist organizations. In the jihadi arena, there are instructional videos showing how to extract the delay element from time delay fuzes for immediate detonation.

In April 2013, a jihadi forum member published a Lebanese Hezbollah instructional video on how to make a booby-trap or anti-handling device with grenades. The instructor demonstrates how to remove the grenade delay element, causing the grenade to explode immediately upon removal of the safety pin, without the usual three-to-four second delay. He then gives an example of how to use such a device to booby-trap a corpse.

Using hand grenades for anti-handling devices with mines was documented in a video circulated on jihadi forums in December 2012; the video depicted training exercises by a



Removing the delay element from the Mk 2 grenade fuze and inserting it under a corpse.
Images courtesy of Terrogeance.

group of Syrian rebels called the Mujahideen Brigade, a local contingent of the former Jabhat al-Nusra (JN) in the Latakia area of northwestern Syria. The video presents a practical lesson as well as hands-on practice in mine laying, where the instructor explains the components and operation of a Soviet-made PMN-1: a pressure-activated, anti-personnel landmine. In the video, a grenade is buried in a shallow pit, serving as an anti-lift device for the mine then placed on top of it.

On 8 August 2018, the Syrian rebel group Junud al-Sham published a video showing a training camp used by the group's fighters. The video shows fighters training how to neutralize mines in the field. Additionally, one fighter demonstrates how to detect and neutralize a Claymore-type IED hidden in some bushes along a footpath, fitted with a pressure-release device in the form of a Russian-made grenade fuze with a tripwire tied to the safety ring and a grenade—with its safety pin removed—planted underneath the improvised mine.

As previously stated, there are jihadi instructional videos showing how to extract the delay element from time-delay fuzes for immediate detonation. However, even without removing the delay element, the surprise of hearing the faint pop of the exploding primer at start of the four-second delay period can catch a soldier or the targeted victim off guard, allowing sufficient time for the grenade or grenade fuze to detonate and cause the desired injury.

Explosive devices targeting bomb disposal experts are usually secondary systems that are hidden from view. In these cases, there may not be any discernible indication from the primary system that an additional system exists. In IEDs specifically designed to target bomb technicians, one or more components (the battery, telephone, or wires) is clearly visible in order to trick technicians into thinking that they have neutralized the initiation system or power source. Meanwhile, the secondary device is concealed, sometimes completely



The grenade, without its safety pin, is planted under the mine and covered with soil, creating an anti-lift device.
Images courtesy of Terrogeance.



Neutralizing mines.
Images courtesy of Terroence.



Detecting and neutralizing the booby-trap (grenade) from under the Claymore mine.
Images courtesy of Terroence.



Al-Karma, Iraq, January 2016.
Images courtesy of Terroence.



Collection of fully-assembled IEDs comprising mines fitted with improvised pressure plates and anti-lift boxes, Falluja, Iraq, 2016.
Image courtesy of Terroence.

Nineveh, Iraq, November 2016.
Image courtesy of Terroence.



IS anti-lift firing systems.
Images courtesy of Terrogence.



Anti-lift switches used by IS Sinai Province.
Images courtesy of Terrogence.



Anti-lift switches used by IS Sinai Province.
Image courtesy of Terrogence.



IS anti-tank mines, Al-Ramadi, Iraq, December 2016.
Image courtesy of Terrogence.



IS anti-tank mine with anti-lift switch.
Images courtesy of CAT IED.



separated from the primary IED with an independent power source, while it actually constitutes an initiation system for both the primary and secondary device.

In June 2016, the beleaguered Iraqi city of Fallujah was finally liberated from the grip of the Islamic State (IS) after a month-long offensive. Workshops for the production of various IEDs, mortar rounds, rockets, and homemade explosives discovered in the city were extensively documented by Iraqi Security Forces and the media. Alongside fully-assembled IEDs comprising mines and improvised pressure plates were white boxes. The purpose of these boxes was to serve as anti-handling firing systems that would target deminers or bomb disposal personnel who would lift up the mine after first neutralizing the improvised pressure plate. Since then, these white anti-lift boxes and other anti-lift switches have been documented on many occasions and in different regions under the influence of IS.

IS has produced some mines with anti-handling features that are externally similar to their single-function, plastic anti-tank mines. These mines also have a similar interior to the improvised IS anti-tank mine, with a mechanical-pressure fuze located at the center of a concave metal plate inside the mine. Some of the mines also have a built-in pressure-release switch serving as an anti-handling device.

In order to avoid initiation by anti-lift switches and subsequent injury, deminers and bomb disposal personnel must always be alert to the possible presence of anti-lift devices and booby-traps when handling IEDs, mines, or any other ordnance or items that can be used as bait. Precautionary measures to prevent unnecessary exposure to anti-handling devices should be taken by counter-charging ordnance and mines by detonating the devices in situ, remotely pulling the device using a “hook and line” technique to negate anti-lift

or tampering systems, or using penetrating technologies to inspect weapons or ammunition, which most commonly involve mobile X-ray systems to determine whether containers’ inner contents are legitimate or suspicious. ©

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Chief Superintendent Michael Cardash, the former deputy head of the Israeli National Police Bomb Disposal Division, has served 27 years as a senior bomb technician. During those years he participated in numerous missions defeating IEDs and other counter-terrorist operations. He commanded bomb disposal units within the Israeli border guards and police during intense terrorist conflicts, gaining experience investigating, and responding to the variety of terror attacks including suicide bombing devices and incidents. Cardash currently researches global IED incidents, is the Senior C-IED Analyst at Terrogeance, and authors the Terrogeance Möbius C-IED reports, which analyze and assess global IED-related technical and tactical intelligence.